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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,557	11/14/2003	Martin Stahl	13913-173US1 / 2001P00015	1730
32864 7590 02/22/2007 FISH & RICHARDSON, P.C. PO BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER HWANG, JOON H	
			ART UNIT 2166	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/714,557

Applicant(s)

STAHL ET AL.

Examiner

Joon H. Hwang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The applicants amended claims 1, 3, 10-11, 19, and 22 in the amendment filed on 11/14/03.

Claim Objections

2. Claims 2, 4, 11, and 13 are objected to because of the following informalities:

- "the coding" in 1st line of claim 2 should be "a coding";
- "the entry" in 1st line of claims 2 and 11 should be "the entries"; and
- "the double-byte code" in 2nd line of claims 4 and 13 should be "the multi-byte code".

Appropriate correction is required.

Response to Arguments

3. Applicant's arguments filed on 11/16/2006 have been fully considered but they are not persuasive.

A. The applicants argue that claims 10-21 are directed to statutory subject matter.

The examiner respectfully traverses.

On page 6, line 13, thru page 7, line 16 of the specification applicant has provided evidence that applicant intends a computer readable medium to include transmission type media, such as a signal, as such the claim is drawn to a form of energy. Energy is not one of the four categories of invention and therefore the claim(s)

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is/are not statutory. Energy is not a series of steps or acts and thus is not a process.

Energy is not a physical article or object and as such is not a machine or manufacture.

Energy is not combination of substances and therefor not a composition of matter.

Thus, the claims 10-21 are directed to non-statutory subject matter. Therefore, the applicants' arguments are not persuasive.

B. The applicants argue that Griffin do not teach or suggest storing representations, for at least one entry in the source table, of the action type and of the unique key in a log table under the a condition that the action type coincides with a predetermined action type.

The examiner respectfully traverses.

It is a well settled rule that a reference must be considered not only for what it expressly teaches, but also for what it fairly suggests. See *In re Burckel*, 592 F.2d 1175, 201 USPQ 67 (CCPA 1979) and *In re Lamberti*, 545 F.2d 747, 192 USPQ 278 (CCPA 1976) as well as *In re Bode*, 550 F.2d 656, 193 USPQ (CCPA 1977) which indicates such fair suggestions to unpreferred embodiments must be considered even if they were not illustrated. Additionally, it is an equally well settled rule that what a reference can be said to fairly suggest relates to the concepts fairly contained therein, and is not limited by the specific structure chosen to illustrate such concepts. See *In re Bascom*, 230 F.2d 612, 109 USPQ 98 (CCPA 1956).

Griffin discloses the deltas may be any of various different forms as in the prior art (col. 6, lines 63-64), which teaches the deltas can be in form of a table as well known in

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the art (i.e., information is structured in tables, col. 3, line 52). The deltas teach a log of changes (col. 3, line 64 thru col. 4, line 11). Thus, these teach a log table.

Griffin discloses an action type in the delta (i.e., "+" for add, "-" for delete, and "mod" for update, col. 11, lines 24-36).

Griffin discloses a unique key in the delta (i.e., tuples including ID key, such as item 103 in fig. 10; col. 11, lines 24-36 and fig. 14).

Griffin discloses two types of transactions: update and read (col. 2, lines 10-20). Griffin discloses the deltas only include update transactions, such as add, delete, and update (col. 11, lines 24-36). Read transactions are not included in the deltas. Thus, if a transaction is determined as an update transaction, the transaction is included in the deltas. Therefore, the deltas store a transaction under a condition that the transaction is an update transaction.

Therefore, Griffin teaches storing representations, for at least one entry in the source table, of the action type and of the unique key in a log table under the a condition that the action type coincides with a predetermined action type.

Since Griffin teaches such storing representations, Griffin also teaches adjusting the entries in the target table that have keys represented in the log table according to the action type representation stored in the log table (i.e., entries in ReadDB table are copied and adjusted, line 64 in col. 3 thru line 11 in col. 4, line 7 in col. 6 thru line 8 in col. 7, fig. 2, fig. 10, and fig. 14).

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"Prima facie case of obviousness is established when **teachings of prior art appear to suggest claimed subject matter to person of ordinary skill in art**; it is incumbent upon applicant to go forward with objective evidence of unobviousness once prima facie case is established." In re Rinehart (CCPA) 189 USPQ 143 Decided Mar. 11, 1976 No. 75-608 U.S. Court of Customs and Patent Appeals.

However, the applicants failed to provide such evidence.

Therefore, the applicants' arguments are not persuasive.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 10-21 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. "An article of manufacture comprising a computer readable medium having computer readable program code embodied therein" in lines 1-2 of claim 10 is insufficient to render the claims physically embodied in a manner so as to be executable. On page 6, line 13, thru page 7, line 16 of the specification applicant has provided evidence that applicant intends a computer readable medium to include transmission type media, such as a signal, as such the claim is drawn to a form of energy. Energy is not one of the four categories of invention and therefore the claim(s) is/are not statutory. Energy is not a series of steps or acts

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and thus is not a process. Energy is not a physical article or object and as such is not a machine or manufacture. Energy is not combination of substances and therefor not a composition of matter. The same rationale applies to claims 11-19 and they are likewise rejected.

"A computer program product" in 1st line of claim 19 is insufficient to render the claims physically embodied in a manner so as to be executable. On page 6, line 13, thru page 7, line 16 of the specification applicant has provided evidence that applicant intends a computer readable medium to include transmission type media, such as a signal, as such the claim is drawn to a form of energy. Energy is not one of the four categories of invention and therefore the claim(s) is/are not statutory. Energy is not a series of steps or acts and thus is not a process. Energy is not a physical article or object and as such is not a machine or manufacture. Energy is not combination of substances and therefor not a composition of matter. The same rationale applies to claims 20-21 and they are likewise rejected.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 5-10, and 14-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Griffin et al. (U.S. Patent No. 6,006,216).

With respect to claim 1, Griffin teaches migrating content from a source table in a source database to a target table in a target database, wherein the databases are physically different (i.e., migrating content from AdminDB to ReadDB, wherein AdminDB utilizes normalized schema and ReadDB utilizes unnormalized schema, and AdminDB and ReadDB reside on different platforms, fig. 2, lines 32-45 in col. 6, and lines 22-39 in col. 7). Griffin teaches storing entries corresponding to database instructions in at least one of the source table and the target table, with a business application consecutively sending database instructions to the source database before migrating, the business application consecutively sending database instructions to the target database after migrating, each entry in each table having a unique key, and the database instructions having action types (line 64 in col. 3 thru line 11 in col. 4, line 7 in col. 6 thru line 8 in col. 7, fig. 2, fig. 10, and fig. 14). Griffin teaches storing representations, for at least one entry in the source table, of the action type and of the unique key in a log table under the condition that the action type coincides with a predetermined action type (i.e., generation of delta, line 64 in col. 3 thru line 11 in col. 4, line 7 in col. 6 thru line 8 in col. 7, fig. 2, fig. 10, and fig. 14). Griffin teaches copying entries of the source table to the target table (line 64 in col. 3 thru line 11 in col. 4, line 7 in col. 6 thru line 8 in col. 7, fig. 2, fig. 10, and fig. 14). Griffin teaches adjusting the entries in the target table that have keys represented in the log table according to the action type representation stored in the log table (i.e., entries in ReadDB table are copied and adjusted, line 64 in col. 3 thru line 11 in col. 4, line 7 in col. 6 thru line 8 in col. 7, fig. 2, fig. 10, and fig. 14).

With respect to claim 5, Griffin teaches adjusting the entries is performed in a first adjustment period while the application is sending database instructions and in a second adjustment period while the application is not sending database instructions (line 52 in col. 6 thru line 8 in col. 7).

With respect to claim 6, Griffin teaches the predetermined action types are selected from the group consisting of insert, delete, and update (line 52 in col. 6 thru line 8 in col. 7).

With respect to claim 7, Griffin teaches the database instructions are SQL statements (lines 11-25 in col. 10).

With respect to claim 8, Griffin teaches adjusting the entries comprises adjusting a first portion of the source table with a first portion of the target table substantially in parallel with adjusting a second portion of the source table with a second portion of the target table (i.e., handling multiple transactions concurrently, lines 31-35 in col. 1 and line 52 in col. 6 thru line 8 in col. 7).

With respect to claim 9, Griffin teaches copying entries comprises copying a first portion of the source table to a first portion of the target table substantially in parallel with copying a second portion of the source table to a second portion of the target table (i.e., handling multiple transactions concurrently, lines 31-35 in col. 1 and line 52 in col. 6 thru line 8 in col. 7).

The limitations of claims 10, 19, and 22 are rejected in the analysis of claim 1 above, and these claims are rejected on that basis.

The limitations of claims 14 and 20 are rejected in the analysis of claim 5 above, and these claims are rejected on that basis.

The limitations of claim 15 are rejected in the analysis of claim 6 above, and the claim is rejected on that basis.

The limitations of claim 16 are rejected in the analysis of claim 7 above, and the claim is rejected on that basis.

The limitations of claims 17 and 21 are rejected in the analysis of claim 8 above, and these claims are rejected on that basis.

The limitations of claim 18 are rejected in the analysis of claim 9 above, and the claim is rejected on that basis.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2-4 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griffin et al. (U.S. Patent No. 6,006,216) in view of Nowlin, Jr. et al. (U.S. Patent No. 6,484,309).

With respect to claims 2-4, Griffin discloses the claimed subject matter as discussed above except converting the coding of the entry. However, Nowlin teaches converting the coding of data from ASCII-code to Unicode (lines 19-33 in col. 3 and

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lines 42-51 in col. 4) in order to transfer the data to a system that uses only Unicode strings which are 16 bits per character. Therefore, based on Griffin in view of Nowlin, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Nowlin to the system of Griffin in order to transfer the data to a system that uses only Unicode strings which are 16 bits per character.

The limitations of claims 11-13 are rejected in the analysis of claims 2-4 above, and these claims are rejected on that basis.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

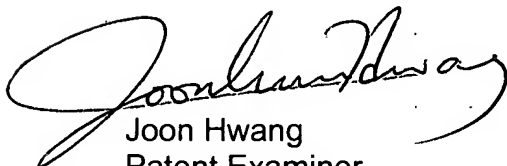
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joon H. Hwang whose telephone number is 571-272-4036. The examiner can normally be reached on 9:30-6:00(M~F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Joon Hwang
Patent Examiner
Technology Center 2100

2/16/2007